

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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Ex parte YOSHIHITO ASAO, HIROFUMI WATANABE,  
KATSUMI ADACHI, SHIROU IWATANI,  
KYOJI MATSUMURA and TUNEJI GODA

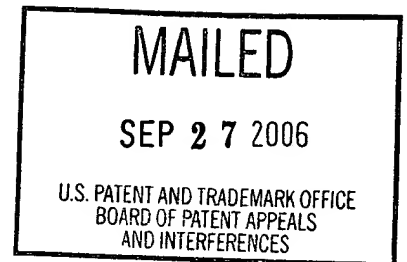
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Appeal No. 2006-2220  
Application No. 09/813,348

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ON BRIEF

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Before KRASS, JERRY SMITH, and SAADAT, Administrative Patent Judges.

SAADAT, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal under 35 U.S.C. § 134(a) from the Examiner's final rejection of claims 1-10, which are all of the claims pending in this application.

We reverse.

BACKGROUND

Appellants' invention is directed to an electrical power supply system for use in an automotive vehicle for supplying power to a high power load and a battery. An understanding of the invention can be derived from a reading of exemplary independent claim 1 which is reproduced as follows:

1. An electrical power supply system for an automotive vehicle comprising:

an alternator having an armature winding and a field coil for supplying a power to both a high power load and a battery,

a stepping-up DC/DC converter for stepping up a voltage of said battery and applying a stepped-up voltage to said field coil,

a voltage control means for controlling an output voltage of said alternator by controlling a current of said field coil, and

a control means for increasing power of said alternator by changing said output voltage of said alternator in response to a rotating speed of said alternator when said alternator supplies power to said high power load, and for controlling said output voltage of said alternator to a battery charging voltage by regulating said voltage control means when said alternator supplies power to said battery.

The Examiner relies on the following references in rejecting the claims:

|                                      |           |               |
|--------------------------------------|-----------|---------------|
| Kaneyuki                             | 5,418,401 | May 23, 1995  |
| Taniguchi et al.<br>(Taniguchi '484) | 5,719,484 | Feb. 17, 1998 |

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| Taniguchi et al.<br>(Taniguchi '559) | 5,726,559 | Mar. 10, 1998 |
|--------------------------------------|-----------|---------------|

|         |           |               |
|---------|-----------|---------------|
| Glennon | 5,930,134 | Jul. 27, 1999 |
|---------|-----------|---------------|

Claims 1, 3 and 7-9 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Kaneyuki and Glennon.

Claim 2 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Kaneyuki, Glennon and Taniguchi '484.

Claims 4-6 and 10 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Kaneyuki, Glennon and Taniguchi '559.<sup>1</sup>

We make reference to the briefs and answer for the respective positions of Appellants and the Examiner.

#### OPINION

The main point of contention is based on whether the claimed stepping-up DC/DC converter for stepping up a voltage of said battery and applying a stepped-up voltage to said field coil is the same as Glennon's stepped-up voltage supplied to the armature winding. While acknowledging that Kaneyuki does not use a stepping-up DC/DC converter (answer, page 4), The Examiner opines that applying a desired voltage to the field coil of an alternator is well known in the art (answer, page 6). The Examiner further

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<sup>1</sup> The rejection of claims 5, 6 and 10 under the second paragraph of 35 U.S.C. § 112 is withdrawn in the answer.

argues that since the claims do not distinguish between a field coil and an armature coil, the voltage controller may apply the stepping-up voltage to either one (id.).

Appellants argue that in Kaneyuki the field coil 3 is connected to the battery 12 (brief, page 6) while Glennon's stepped-up voltage is applied to the armature winding 54 of the generator, instead of its field winding (brief, page 8). Appellants further assert that an armature winding and a field coil are positively recited in the claims, each requiring a specific connection to the power supply (reply brief, page 2). Appellants further challenge the Examiner's characterization of the armature windings in Figure 2 of Glennon as the claimed field coil and point out that neither of the main armature winding 54 or the exciter armature 52 may be taken as the claimed field coil (reply brief, page 2).

After a review of Glennon, we disagree with the Examiner that the stepped-up voltage is in any way applied to the field coil of the alternator. Glennon, in fact, applies the stepped-up voltage to the armature coil 54 of Figure 4 (col. 5, lines 1-5), which has no link with the main field coil winding. Therefore, we agree with

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Appellants (brief, page 8) that the absence of the specific parts of the claimed process steps in the reference indicates that the combination of Kaneyuki and Glennon cannot support a prima facie case of obviousness. Accordingly, we do not sustain the 35 U.S.C. § 103 rejection of claims 1, 3, 7, 8 and 9 over Kaneyuki and Glennon.


With respect to the rejection of the remaining claims, we note that the Examiner relies on Taniguchi '484 and Taniguchi '559 for additional features claimed in the other dependent claims. However, the Examiner has not pointed to any convincing rationale in modifying Kaneyuki and Glennon with the teachings of Taniguchi references that would have overcome the deficiencies of the applied prior art as discussed above with respect to claims 1, 3 and 7-9. Accordingly, the 35 U.S.C. § 103 rejection of claims 2, 4-6 and 10 over Kaneyuki and Glennon in combination with Taniguchi '484 or '559 cannot be sustained.

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## CONCLUSION

In view of the foregoing, the decision of the Examiner rejecting claims 1-10 under 35 U.S.C. § 103 is reversed.

REVERSED

  
ERROL A. KRASS  
Administrative Patent Judge )

*Jerry Smith*  
JERRY SMITH  
Administrative Patent Judge

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INTERFERENCES

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